

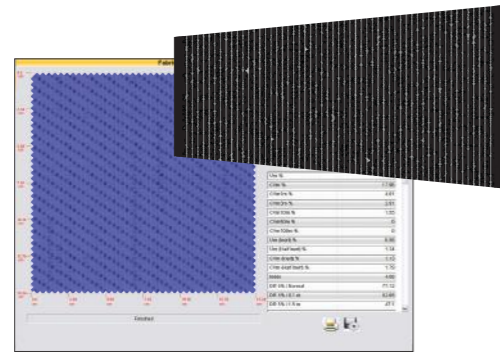
iQ3™

More than an Evenness tester. The Quality Expert



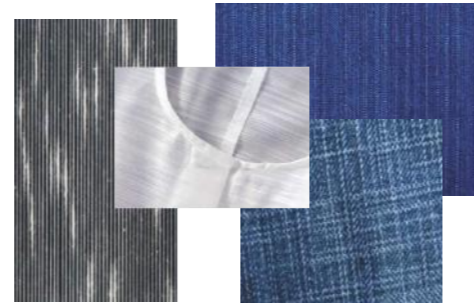
Fabric Simulation - For post spinning analysis

- Easy to use: A single click after completing the test simulates the fabric of desired structure
- Simulation of size 6"x6" for the virtual feel of the fabric
- Simulation of widely used structures of Woven and Knitted fabrics. Black board simulation for earlier process correction
- Comprehensive simulation covering Regular, Slub and Fancy yarn



Slub and Fancy Yarn

- The comprehensive measurement provides important information on No. of Slubs, Slub Length, Slub Distance, Mass increase %, Mass decrease % (Left and Right), T/B ratio, Ramp, Count and Outliers
- A scatter plot helps to understand the distribution of Slubs with respect to length and mass increase
- The expected Slub distance can be entered by user and after testing, the actual Slub occurrence can be compared
- Two Slub Reports can be compared based on distribution by superimposing Histograms



Specifications

iQ3™ Technical Data*

Basic installation

- Single Module to test all Evenness properties
- RH and Room Temperature measurement
- Fabric & yarn board Simulation
- Slub and Fancy yarn measurement & Simulation

Additional Options

- Hairiness Index (Hi) / Hair Count Distribution (Hc) & Hair Severity (HS)
- Diameter Module
- Coarser Sliver Measuring Slot

Application range

- Spun Yarn, Roving & Sliver : 3.3 tex to 40 ktex

Measuring principle

- Evenness and Slub measurement : Capacitance
- Hairiness Index : Optical
- Hair Count and Hair Severity : Optical
- Diameter measurement : Optical

Sample Presentation

- Yarn - Manual
- Roving / Sliver - Manual

Analysis Reports

- Spectrogram (Peak & Drafting Wave) analysis
- VL Curve analysis
- Super imposing of Slub distribution
- Statistical Analysis Tool

Ambient Condition

- Relative Humidity : 65 ± 2%
- Temperature : 21 ± 1°C
(27 ± 1°C for Tropical Conditions)

Power consumption

- Single Phase 1.25 kVA, 1.5 kVA UPS

Compressed air consumption

- 18 m³/hr at 6 bar

* Subject to change without prior notice



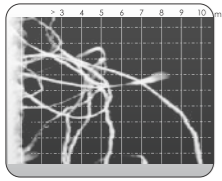
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“Unique” features

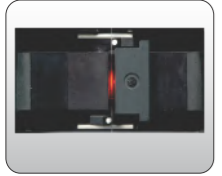


Hi: The traditional Hairiness Index is used for trading purpose, which measures hairs irrespective of length over 1cm yarn length

(OR)



Hc: Hair Count distribution helps to optimise the compact spinning process with H3 and distribution of hairs between 3 - 10mm



HS: Hair Severity (HS), the contemporary tool represents the “severity of long length hairs”, truly representing various process stages viz; Spinning, Singeing, Knitting and Weaving

Hyper Sensitive Imperfections

3 additional sensitivity levels, viz;

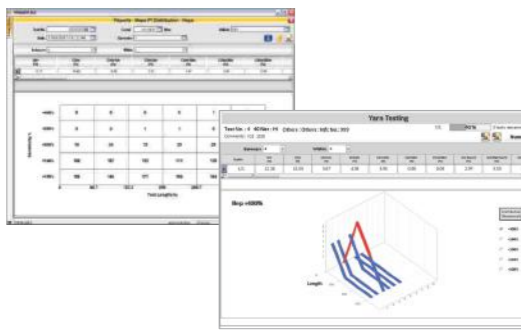
Thin -25%, Thick +25% and Neps +100% apart from the current extra sensitivity level opens up new process control possibilities

Test No.	Um %	CVm %	Thin (-25%) / km	Thick (+25%) / km	Neps (+100%) / km
1 / 1	13.58	17.46	7860	4533	8683
2 / 1	12.45	15.93	6408	3748	7280
3 / 1	12.25	15.63	6055	3580	6980
4 / 1	11.86	15.15	5213	3088	6535
5 / 1	12.73	16.23	6833	3765	7940
6 / 1	11.90	15.24	5475	3348	6670
7 / 1	12.11	15.48	5808	3548	7463
8 / 1	11.53	14.74	5165	2973	6410
9 / 1	12.89	16.42	6898	3848	7603
10 / 1	12.44	15.89	6448	3710	7558
Mean	12.87	15.82	6216.30	3614.10	7312.20
Median	12.35	15.76	6231.50	3645.00	7371.50
S.D.	0.59	0.77	849.27	436.29	697.84
C.V.%	4.78	4.87	13.66	12.07	9.54
Q95	0.42	0.55	606.95	311.80	498.73
M.S.P. %	-	-	-	-	-

Imperfection Distribution

Independent distribution charts for Thin, Thick and Neps enable the user to visualise whether the fault is clustered or spread across the test length

The entire test length can be viewed in a single window. Flexibility to distribute the faults into 7 levels between 4 and 20

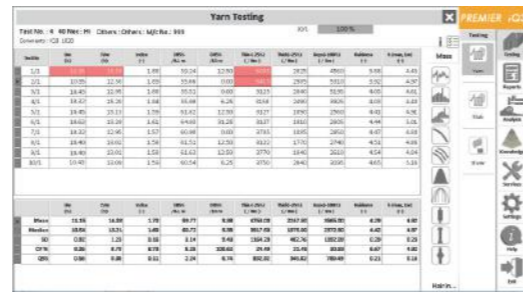


Quick Testing

Intelligent software for rapid testing and instantaneous retrieval of Reports

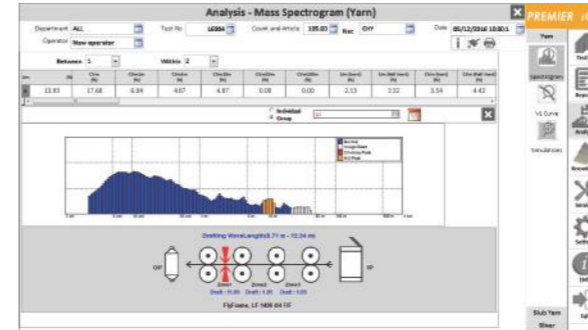
Exceptions and Alerts

The Quality expert equips the user with knowledge by highlighting the exceptions during testing which prompts the user to look into specific areas



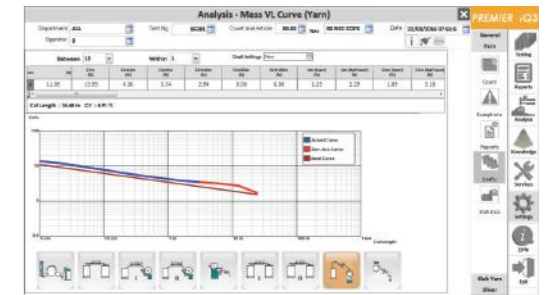
Drafting Wave

The draft zone responsible for the drafting wave is tracked automatically, with details of draft enabling the user to initiate corrective action viz; draft setting, draft distribution etc.,



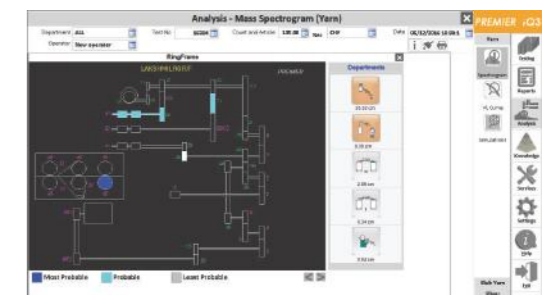
Variance Length Curve

The deviation in Variance Length curve is marked and the specific department which is responsible for the high CV is highlighted automatically



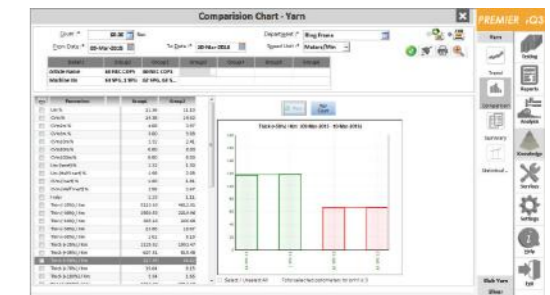
Spectrogram Analysis

Automatically identifies faulty machinery component and back tracks faults in the process upto Carding department with more than 470 gearing plans for Cotton, Man-made fibre and Worsted machinery



Trend and Comparison

The unique comparison chart enables to compare all machines in a department and machines allocated to a Count group



Statistical Comparison

Statistical analysis tool helps users to compare between test results statistically and make more accurate decisions.

